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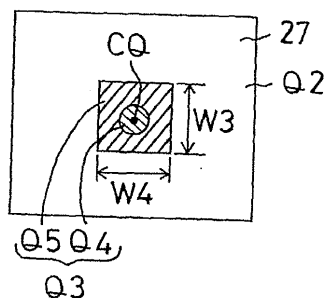
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(54) **Automatic reflector tracking apparatus**

(57) The present invention comprises an illumination portion (11), which is disposed in a surveying machine body (8), for illuminating measurement light toward a reflector (2), a light receiving portion (12), which is disposed in the surveying machine body (8), having an image sensor for receiving a reflection light image (M0) of the measurement light illuminated toward the reflector (2), arithmetic means (37) for calculating a position in an area (Q2) of the image sensor (27) for the reflection light image

(M0) from the reflector, and a rotation mechanism for rotating the survey machine body (8) so as to position the reflector (2) on a light receiving optical axis (02) of the light receiving portion (12) based on the position obtained by the arithmetic means (37), and a light receiving area (Q3) which is a smaller area than the area (Q2) of the image sensor (27) and has the light receiving optical axis (02) as a center is provided in the area (Q2) of the image sensor (27).

FIG. 5





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EUROPEAN SEARCH REPORT

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EP 03 09 0395

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Place of search The Hague		Date of completion of the search 22 September 2008	Examiner Dragomir, Adrian
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<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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